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МЕТОДИЧНІ ВКАЗІВКИ

з розвитку навичок читання спеціальної літератури за фахом

для студентів І – ІІІ курсів факультету КІТ
(Англійська мова)

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ПЕРЕДМОВА

Дані методичні вказівки призначені для самостійної та аудиторної роботи студентів І – ІІІ курсів факультету КІТ.

Вони мають за мету розвиток навичок читання літератури за фахом, з використанням типових завдань з технік анотування та реферування, спрямованих на краще оволодіння змістом.

Матеріал вказівок містить 15 текстів, присвячених різним галузям інформатики та обчислювальної техніки, а також інформаційних технологій.

Дані методичні вказівки складено на базі матеріалів автентичного курсу, розробленого Оксфордським університетом, а також з використанням матеріалів Інтернету.

I. History of Computers

Let us take a look at the history of the computers that we know today. The very first calculating device used was the ten fingers of a man's hands. This, in fact, is why today we still count in tens and multiples tens. Then the abacus was invented, a bead frame in which the beads are moved from left to right. People went on using some form of abacus well into 16^{th} century, and it is still being used in some parts of the world because it can be understood without knowing how to read.

During the 17^{th} and 18^{th} centuries many people tried to find easy ways of calculating. J. Napier, a Scotsman devised a mechanical way of multiplying and dividing, which is how the modern slide rule works. Henry Briggs used Napier's ideas to produce logarithm tables which a mathematicians use today. Calculus, another branch of mathematics, was independently invented by Sir Isaak Newton, an Englishman, and Leibnitz, a German mathematician.

The first real calculating machine appeared in 1820 as the result of several people's experiments. This type of machine, which saves a great deal of time and reduces the possibility of making mistakes, depends on a series of ten-toothed gear wheels. In 1830 Charles Babbage, an Englishman, designed a machine that was called "The analytical Engine". This machine, which Babbage showed at Paris Exhibition in 1885, was an attempt to cut out the human being altogether, except for providing the machine with the necessary facts about the problem to be solved. He never finished this work, but many of his ideas were the basis for building today's computers.

In 1930, the first analog computer was built by an American named Vannever Bush. The device was used in World War II to help aim guns. Mark I, the name given to the first digital computer, was completed in 1944. The men responsible for this invention were Professor Howard Aiken and some people from IBM. This was the first machine that could figure out long lists of mathematical problems, all at a very fast rate. In 1946 two engineers at the University of Pennsylvania, J. Eckert and J. Mauchly, built the first digital computer using parts called vacuum tubes. They named their new invention ENIAC. Another important advancement in computers came in 1947, when John von Newmann developed the idea of keeping instructions for the computer inside the computer's memory.

The first generation of computers, which used vacuum tubes, came out in 1950. Univac I is an example of these computers which could perform thousands of calculations per second. In 1960, the second generation of computers was developed and these could perform work ten times faster than their predecessors. The reason for this extra speed was the use of transistors instead of vacuum tubes. Second-generation computers were smaller, faster and more dependable than first – generation computers. The third-generation computers appeared on the market in 1965. These computers could do a million calculations a second, which is 1000 times as many as first-generation computers. Unlike second-generation computers, these are controlled by tiny integrated circuits and are consequently smaller and more dependable. Computers of the fourth generation have integrated circuits that have been greatly reduced in size. This is due to a microminiaturization, which means that the circuits are much smaller than before; as many as 1000 tiny circuits now fit into a small chip. A chip is square or a rectangular piece of silicon, usually from 1/10 to 1/4 inch, upon which several layers of integrated circuit are etched or imprinted, after which the circuit is encapsulated in plastic, ceramic or metal.

Fourth-generation computers can complete approximately 1000000 instructions per second.
It has been said that if transport technology had developed as rapidly as computer technology, a trip across Atlantic Ocean today would take a few seconds.

Tasks:

1. Which statement best expresses the main idea of the text? Why did you eliminate the other choices?
- Computers, as we know them today, have gone through many changes.
- Today's computer probably won't be around for long.
- Computers have had a very short history.

2. Decide which statements are true and which of them are false.
- People go on using some forms of the very first calculating devices.
- Logarithm tables were used during the 17^{th} and 18^{th} centuries.
- The first real calculating machine depended on a series of vacuum tubes.
- The first real calculating machine saved a great deal of time and reduced the possibility of making mistakes.
- The first analog computers were used to help aim the guns.
- John von Newmann invented the method of containing the information inside the computer's memory which was a very important advancement in computers.
- Today's computers use a single chip to provide their work.

II. Different kinds of computers

Many people think of a computer either as a personal computer, or as a big thing standing around in some special building. Those big computers are usually called mainframes. But there are many types of computer. An *embedded computer* is a computer that works out information for other things. For example, mobile phones, automatic teller machines, microwave ovens, CD players and cars all have small *embedded computers* that help them to work.
Computers can be used for many things. Generally, they are good at the following kind of tasks:
- tasks that repeat themselves very often, or are very boring to do for humans
- searching for some data (in a collection)

- sorting data, by some methods (different ones exist)
- storing large amounts of data (in a database). The computer is then able to find similarities. This is called data mining.

How computer store things.

The knowledge is stored as symbols, called data. They change symbols and the jobs they have to do into math equations, and can learn the answers to billions of these equations every second. This lets a computer take very hard tasks or strange ideas, and show them with pictures, sound, and words to communicate with the person using them (the «user»). Most of the time, a computer communicates with the user by drawing pictures or writing words on its monitor (screen).

After the computer is done with the data in its memory, it will store it on a hard disk. Most computers have a list of orders that tell the computer how to work with the user. This list of orders is called an algorithm. An operating system tells the computer how to understand what jobs it has to do, how to do these jobs, and how to tell people the results. The disk that contains the operating system is called a boot device.

The different jobs that the computer does are called computer programs. This lets most computers have the same operating system, or list of orders to tell it how to talk to the user, while each computer can have its own computer programs or list of jobs to do what its user needs. Having different programs and operating systems makes it easy to learn how to use computers for new things. When a user needs to use a computer for something different, the user learns how to use one new program.

Tasks:

1. Give definitions to the following words using the text.

data

algorithm

boot device

data mining

2. Find out the general kinds of tasks for which computer can be used instead of a man. Discuss the advantages of replacing some types of man’s work by a computer.

III. Connecting to the Internet

Tasks:

1. What do you know about:
- e-mail?
- the Internet?
- cyberspace?

2. Match verbs in A and phrases in B.

	A		B
1	to link in	a	information from one computer file to another
2	to transfer	b	to a global computer network
3	to retrieve	c	to a magazine or a special interest group
4	to access	d	information from a database
5	to subscribe	e	information in a database

3. Read the article and find the answers to the questions.

1. According to the article, how many people use the Internet, and how many computers are linked in to it?
2. What is the term cyberspace used to describe?
3. When did the idea of the Internet begin?
4. What is the name given to the traditional system of sending mail?
5. On which network can you visit a museum, go shopping, and view a hotel's facilities?
6. Do users of newsgroup have to pay to subscribe to them?

What exactly is the Internet?

The best way to think of the Internet, or Net as it is often called, is as a vast global network connecting computers across the world. These networks range from government departments and industrial and educational communication systems down to the personal online service providers such as CompuServe, Delphi, etc.

At present more than 500 million people use the Internet and over 800 million computers worldwide are linked in. They use the Net for transferring data, playing games, socializing with other computer users and sending e-mail (electronic mail).

What is cyberspace?

Cyberspace is the term we give to this entire electronic domain. Whenever you are using one of the online services such as e-mail or the World Wide Web, you are in cyberspace.

Despite the confusing techno-jargon that surrounds it, the Internet is simple: computers talk to one another through a network that uses phone lines, cable and fiber-optic lines.

How did it begin?

The Net was dreamt up in the late 1960s by the US Defense Department's Advanced Research Projects Agency which decided that, in the event of a nuclear attack, it needed a means by which messages could be sent and received even if phone lines were inoperative. In 1969, there was a network of just four mainframe computers. By 1972, the number had risen to 40. About this time the idea of the electronic mailbox was born, as users looked for a way of talking to each other electronically. By 1984 when the resources of the network were made available to academics, the Internet began to develop into the form we know it today.

The Internet can be divided into five broad areas.

1. Electronic mail.

E-mail is much faster than traditional or snail mail because once the message is typed out, it arrives in the electronic mailbox of the recipient within minutes or seconds. Anything that can be digitized – pictures, sound, video – can be sent, retrieved, and printed at the other end. This is efficient, convenient, and saves trees!

2. Information sites.

This is perhaps the fastest growing area of the Internet as more and more people put their own information pages on line. One thing that computers do very well is process vast amounts of information very fast, so, by specifying a key word or phrase, the computer can then search around the Net until it finds some matches. These information sites are usually stored on big computers that exist all over the world. The beauty of the Net is that you can access all of them from your home, using your own PC.

3. The World Wide Web.

The World Wide Web, usually referred to as WWW or 3W, is a vast network of information databases that feature text, visuals, sound, and even video clips. On the

WWW you can do such things as go on a tour of a museum or art exhibition, see the latest images from outer space, go shopping, and get travel information on hotels and holidays. You can even view a hotel's facilities before deciding to book.

4. Usenet.

Usenet is a collection of newsgroups covering any topic. Newsgroups allow users to participate in dialogues and conversations by subscribing, free of charge. Each newsgroup consists of messages and information posted by other users. There are more than 10,000 newsgroups and they are popular with universities and businesses.

5. Telnet.

Telnet programs allow you to use your personal computer to access a powerful mainframe computer. If you are an academic or just have a lot of number-crunching to do it can be very useful and cost-effective.

IV. Risk of using computers

The Internet communications system permits millions of computer users around the world to link together for business and enjoyment. Private citizens, businesses and governments use the Internet. Anyone using the Internet can find information about many different subjects in many different languages in only a few minutes.

The Internet is the fastest, most modern and best communications tool ever invented. However, the Internet also makes it possible for one person to damage or slow thousands of computers that are linked to it. They can do this by writing computer instructions that cause damage. Or they make the computer fill itself with so much useless information that it stops working.

Great loss by "worm".

On January 24, 2003, a kind of computer virus called a «worm» was released to infect the Internet. A worm is a computer instruction that makes copies of itself and sends copies to other computers.

This worm sent copies of itself to computers across the Internet. The worm temporarily damaged millions of computers around the world. It slowed large groups of computers called networks.

For example, one large American banking company had to close about 13,000 of its ATMs. People could no longer get their money from the bank's machines using their cards.

A major international airline could not sell tickets using the Internet because the worm made its computers fail. Emergency service workers in the western American City of Seattle, Washington could not answer emergency calls because the worm caused their computers to fail.

Computer experts named the worm «W-Thirty-Two-Slammer». They said the worm caused a problem for the Internet that was similar to when there are too many cars on a road in a large city. This kind of vehicle problem is called a traffic jam. The Slammer worm caused an information jam.

The experts believe the worm was first released in Asia. An American computer expert said evidence seemed to show the virus first appeared in Hong Kong. A government computer team in Hong Kong is working to find who released the new virus.

South Korea may have been the worst affected nation in the January 24th attack. On January 27th, a spokesman for South Korea's Information and Communication Ministry said computer communications on the Internet were almost back to normal. The ministry also said experts were working to find where the computer virus came from.

Computer experts in China and Taiwan also reported problems with the worm. Computers in Japan suffered some problems. But they were mostly limited to some schools and companies.

By the morning of January 28, computer experts around the world had stopped the worm or made their computer systems safe against the Slammer. Experts believe the worm cost computer networks many millions of dollars in delays, lost business, and the loss of work usually done on a computer.

The person who wrote the instructions that created the Slammer worm attacked computers that use the Microsoft's computer operating systems. Microsoft quickly provided the necessary computer instructions to make its system safe and prevent the Slammer worm from attacking other computers.

The kind of program that made the Microsoft system safe is called a «patch» or «update». Microsoft says it wants to improve the speed of future updates or patches for computer users linked to the Internet.

Computer experts say the Internet has become extremely important every day in every area of the world. They say businesses, local governments and private citizens everywhere are using the Internet as an important part of their business or daily life. The experts say some businesses could no longer exist without the Internet. However, many businesses, local governments and private citizens have failed to learn how to protect their computers from viruses or worm attacks.

Tasks:

1. Answer the questions.

1. How can one person damage thousands of computers that are linked to the Internet?
2. What does a "worm" mean? How does it work?
3. What are the examples of any harm that a "warm" managed to do?
4. Explain the term "information jam".
5. How did the Microsoft company solve the problem?

2. Match the words in A with their definitions in B.

A	B
network	a process that liberates or discharges smth.
link	a group of computers
release	a new release of an existing software product
update	an instruction that connects one part of a program or an element on a list to another program or list

V. Anti-virus program usefulness

Computer experts say many private citizens, businesses, and local governments are not concerned about computer security until they suffer a damaging attack. Such an attack can cost computer users a great deal of money in lost business, lost information or damaged computer equipment. They say the attack can be more costly than providing good communications security.

The experts say that using a computer anti-virus program is the first step in protecting a business or private computer. An anti-virus program searches the computer for, and guards against, viruses. It also inspects incoming e-mail and new programs for viruses.

The experts say that many good computer companies produce anti-virus protection programs. Most companies that offer anti-virus programs also provide new information called «updates» to protect against new viruses or worms as they appear.

Another way of protection.

An American company called McAfee Security produces a popular anti-virus protection program. Other companies, for example Symantec and Computer Associates, sell programs that do the same thing. Computer experts say a good anti-virus program is only the first step in computer security. The experts list a number of things computer users can also do to help protect their computers.

For example, do not open any file attached to electronic mail if it comes from an unknown person or place. Delete electronic mail from unknown people. Make copies of all important documents and keep them in a safe place. This should be done often to protect valuable information.

Computer experts agree that everyone should refuse computer information from strangers. They also agree that users must be extremely careful when copying any kind of information from the Internet to their computer's memory. All experts agree that doing these things is better than suffering a virus or worm attack.

The Internet is fun, educational and a great business tool. But because of computer virus attacks, safety is extremely important.

Tasks:

1. Answer some questions using the text.
    1. What is the first step in protecting a business or private computer?
    2. How does an anti-virus program work?
    3. What can computer users do to protect their computers except using different anti-virus programs?

2. Have you ever suffered from a virus or warm attack? Tell about your experience in the struggle against the computer viruses.

VI. Multitasking

While a computer may be viewed as running one gigantic program stored in its main memory, in some systems it is necessary to give the appearance of running several programs simultaneously. This is achieved by having the computer switch rapidly between running each program in turn. One means by which this is done is with a special signal called an interrupt which can periodically cause the computer to stop executing instructions where it was and do something else instead. By remembering where it was executing prior to the interrupt, the computer may return to that task later. If several programs are running «at the same time», then the interrupt generator may be causing several hundred interrupts per second, causing a program switch each time. Since modern computers typically execute instructions several orders of magnitude faster than human perception, many programs may seem to be running at the same time even though only one is ever executing in any given instant. This method of multitasking is sometimes termed «time-sharing» since each program is allocated a «slice» of time in turn.

Before the era of cheap computers, the principle use for multitasking was to allow many people to share the same computer.

Seemingly, multitasking would cause a computer that is switching between several programs to run more slowly - in direct proportion to the number of programs it is running. However, most programs spend much of their time waiting for slow input/output devices to complete their tasks. If a program is waiting for the user to click on the mouse or press a key on the keyboard, then it will not take a «time slice» until the event it is waiting for has occurred. This frees up time for other programs to execute so that many programs may be run at the same time without unacceptable speed loss.

Tasks:

1. Explain the terms “time-sharing”, “an interrupt”.
2. Answer the questions.

1. What is multitasking?
2. Are you a multitasker?
3. How many things are you doing at the same time: at home, when you are watching TV or having dinner, at your university?

4. Would you say it is dangerous to be a multitasker?
5. What are the advantages and disadvantages of multitasking?

VII. Origins of e-mail

E-mail predates the Internet; existing e-mail systems were a crucial tool in creating the Internet. Massachusetts Institute of Technology (MIT) first demonstrated the Compatible Time-Sharing System (CTSS) in 1961. It allowed multiple users to log into the IBM 7094 from remote dial-up terminals, and to store files online on disk. This new ability encouraged users to share information in new ways. E-mail started in 1965 as a way for multiple users of a time-sharing mainframe computer to communicate. Although the exact history is murky, among the first systems to have such a facility were System Development Corporation's Q32 and MIT's CTSS.

E-mail was quickly extended to become *network e-mail*, allowing users to pass messages between different computers. The messages could be transferred between users on different computers by 1966, but it is possible the Semi Automatic Ground Environment system had something similar some time before.

The ARPANET computer network made a large contribution to the evolution of e-mail. There is one report which indicates experimental inter-system e-mail transfers on it shortly after its creation, in 1969. Ray Tomlinson initiated the use of the @ sign to separate the names of the user and their machine in 1971. The ARPANET significantly increased the popularity of e-mail, and it became the Killer app (application) of the ARPANET.

Modern Internet e-mail.

Internet e-mail messages consist of two major sections:

Header - structured into fields such as summary, sender, receiver, and other information about the e-mail.

Body - the message itself as unstructured text; sometimes containing a signature block at the end.

The header is separated from the body by a blank line.

Tasks:

1. Write a short summary in your notebook about history of e-mail and its usage today.

VIII. Internet e-mail header

The message header consists of fields, usually including at least the following:
From: The e-mail address, and optionally name, of the sender of the message.
To: The e-mail address[es], and optionally name[s], of the receiver[s] of the message
Subject: A brief summary of the contents of the message.
Date: The local time and date when the message was originally sent.
Each header field has a name and a value. RFC 2822 specifies the precise syntax. Informally, the field name starts in the first character of a line, followed by a «:», followed by the value which is continued on non-null subsequent lines that have a space or tab as their first character. Field names and values are restricted to 7-bit ASC II characters. Non-ASCII values may be represented using MIME encoded words.
Note that the «To» field in the header is not necessarily related to the addresses to which the message is delivered. The actual delivery list is supplied in the SMTP protocol, not extracted from the header content. The «To» field is similar to the greeting at the top of a conventional letter which is delivered according to the address on the outer envelope. Also note that the «From» field does not have to be the real sender of the e-mail message. It is very easy to fake the «From» field and let a message seem to be from any mail address. It is possible to digitally sign e-mail, which is much harder to fake. Some Internet service providers do not relay e-mail claiming to come from a domain not hosted by them, but very few (if any) check to make sure that the person or even e-mail address named in the «From» field is the one associated with the connection. Some internet service providers apply e-mail authentication systems to e-mail being sent through their MTA to allow other MTAs to detect forged spam that might apparently appear to be from them.
Other common header fields include:
Cc: carbon copy

Received: Tracking information generated by mail servers that have previously handled a message
Content-Type: Information about how the message has to be displayed, usually a MIME type
Many e-mail clients present «Bcc» (Blind carbon copy, recipients not visible in the «To» field) as a header field. Since the entire header is visible to all recipients, «Bcc» is not included in the message header. Addresses added as «Bcc» are only added to the SMTP delivery list, and do not get included in the message data.

Tasks:

1. Make up an e-mail message to your teacher using the following scheme.
From:
To:
Subject:
Date:
Body:
2. Match the words in A and their definitions in B.

A	B
carbon copy	electronic junk mail or junk newsgroup posting
e- mail header	the part of the message indicating who the sender is and some other brief details
bit	in e-mail, a duplicate copy of a message sent to multiple recipients
spam	binary digit – either 0 or 1

IX. Spamming and e-mail worms

The usefulness of e-mail is being threatened by three phenomena: spamming, phishing and e-mail worms.
Spamming is unsolicited commercial e-mail. Because of the very low cost of sending e-mail, spammers can send hundreds of millions of e-mail messages each day over an inexpensive Internet connection. Hundreds of active spammers sending

this volume of mail results in information overload for many computer users who receive tens or even hundreds of junk messages each day.

E-mail worms use e-mail as a way of replicating themselves into vulnerable computers. Although the first e-mail worm (Morris) affected UNIX computers, the problem is most common today on the more popular Microsoft Windows operating system.

The combination of spam and worm programs results in users receiving a constant drizzle of junk e-mail, which reduces the usefulness of e-mail as a practical tool.

A number of anti-spam techniques (e-mail) mitigate the impact of spam. In the United States, U.S. Congress has also passed a law, the Can Spam Act of 2003, attempting to regulate such e-mail. Australia also has very strict spam laws restricting the sending of spam from an Australian ISP, it's impact has been minimal since most spam comes from regimes that seem reluctant to regulate the sending of spam.

Tasks:

1. Have you ever suffered from spamming? How can you protect yourself from junk messages? Write down about five rules how to avoid spam harm.

X. Netiquette

The word netiquette is a neologism, a morphological blend formed from «Internet etiquette» and a catch-all term for the conventions of politeness recognized on Usenet, in mailing lists, and on other electronic forums such as Internet message boards. These conventions address group phenomena (such as flaming) with changes in personal behavior, such as not posting in all uppercase (capital letters), not (cross-) posting to inappropriate groups, refraining from commercial advertising outside the biz groups and not top-posting. RFC 18885 is a fairly lengthy and comprehensive set of such conventions.

Rules of netiquette.

The rules of netiquette are slightly different for newsgroups, private e-mail, web forums, IRC (Internet Relay Chat), and other methods of communication.

For example, on Usenet it is conventional to write in standard English and not to use abbreviations such as «u» for «you» or «ne1» for «anyone». These abbreviations are only slightly more likely to be tolerated on web forums, but are fairly widely used in certain parts of IRC where, since discussion is real-time, they serve the practical purpose of speeding the rate of typing for people who cannot touch-type. However, many IRC users look down on this form of conversation as it doesn't make reading easier and may actually confuse further in the face of poor grammar; there are many IRC channels where it is inappropriate and can get you kicked or even banned.

Issues such as the level of tolerance for off-topic discussion or spoilers may also vary from one newsgroup, forum, or channel to another. The rule of thumb in any of these discussion media is to «lurk before you leap» – get a feel for the local conventions before diving into conversation and inadvertently embarrassing oneself. Also, read the FAQ if there is one.

Usenet etiquette.

The following is a list of some of the more common rules associated with netiquette on Usenet.

The most important rule of netiquette is, «Think before you post». If what you intend to post will not make a positive contribution to the newsgroup and be of interest to several readers, do not post it! Personal messages to one or two individuals should not be posted to newsgroups - use private e-mail instead.

This is sometimes stated in other forms, such as «Remember the human».

Quoting should be interspersed, with your response following the relevant quoted material. The result should be read like a conversation, with quotes indented to aid in skimming. A common mistake is to put all new text above the quoted material, without trimming any irrelevant text. This results in a message that is much harder to follow and much less clear context. Remember that your audience uses kill files, sites drop messages, mailbox quotas go over their limit, users might be dealing with thousands of pieces of correspondence a day and messages get delivered out of order: assume nobody has read or remembers the message you're responding to, and does not have the time to figure out what context your response is in for themselves. If the article to which you are responding was cross-posted to several groups, edit the distribution («Newsgroups:») header to contain only those groups which are

appropriate to your reply, especially if the original message was posted to one or more inappropriate groups in the first place.

Re-read and edit your posting carefully before you post. Check the spelling, grammar, and capitalization. Don't be afraid to re-write entire paragraphs or worse. Typing in all capital letters usually denotes screaming or yelling, and is to be avoided. Less drastic effects include ***bold***, */italics/*, and underline. When posting humorous or sarcastic comments, it is conventional to append an *emoticon*, but do not overuse it.

Do not post test messages except in their appropriate groups; wait until you have something to say.

Post in plain text, not HTML. Most readers use a text-only utility so any HTML will be lost anyway. Keep your lines to fewer than **70 characters**, counted in a fixed-pitch font, as that allows for a reasonable number of levels of quoting on a 80 column screen without automated wrap.

Before asking a question, read the messages already in the group and read the group's FAQ if it has one.

There are groups that expect of you that when you do post a question, you follow it with, «Please reply by mail and I will post a summary if requested,» and make sure you *do* post a summary if requested; or, if only a few people were interested, send them a summary by mail. This avoids umpteen people posting the same answer to the group and umpteen others posting «me too»s.

However, many newsgroups follow the rule «Post here, read here» (that is, they explicitly discourage posters from requesting offline answers to topical questions). This is because there may be lurkers who would benefit from seeing the discussion unfold online, and because questioners often do forget to post summaries of their findings.

Consider the language of the target group as well. Please remember that while English is the lingua franca of the Internet, many newsgroup hierarchies use a different language. Where, say, posting in German to English language groups is not appropriate, the same goes for posting in English in the German hierarchy.

Be proud of your postings, but do not post just to see your name in pixels. Remember: your future employer may be reading.

A signature at the end of a posting (signified by two dashes and a space on a line of their own, everything afterward including stray quoted material is counted part of the signature) should be no more than 80 columns wide and four lines long. You

can put things like your name and contact information in that space, perhaps a quote or a witty saying – in moderation. Signatures are not expected to be quoted in followups, and many newsreaders will strip them automatically.

Religious beliefs, political stances, or other strong opinions are inappropriate for inclusion when posting in groups where that is not a topic, even as signature.

There is also a netiquette rule for how to deal with someone who has violated one of the rules of netiquette.

If you believe someone has violated netiquette, send him or her a message by *private e-mail*; **do not** post a follow-up to the offending post. Be polite. The author may not have realized his or her mistake, may be a beginner, or may not even have been responsible for the «crime» – his or her account may have been used by someone else, or the address may have been forged. Furthermore, a person who breaks netiquette over and over may be doing it intentionally to disrupt the group, in which case public flaming over the violation would amount to what is termed *feeding the troll*.

Tasks:

1. Match the words in A and their definitions in B.

A	B
flaming	a symbol that uses the characters on a computer keyboard to convey emotion or tone in an electronic message, such as the smiley face
quoting	copying the magnetic stripe encoding from one card to another
emoticon	a copy of the original e-mail message that appears on the top of a return e-mail
skimming	the sending of messages that include bad language or repeat messaging especially of undesirable or obscene text

2. Discuss the importance of using the netiquette.
3. How do you understand the expression “feeding the troll”?
4. Answer the questions in the quiz.

Netizen: A positive term used to describe an Internet user who is aware of the culture and rules governing the Internet.

Newbie: A somewhat derogatory term used to describe an inexperienced obnoxious user. The terms refer to the brand of user who is unschooled in the Internet's traditions, takes little time to learn them and acts rudely.

Answer the questions below to find out if you are a Netizen or Newbie!

1. Why shouldn't I type my e-mails in all caps?

a) All caps insinuate you are yelling or screaming.
b) It makes you look lazy and/or uneducated.
c) It is a strain on your eyes, makes reading e-mail more difficult.
d) All of the above.

2. Why should I use the BCC field?

a) So I can send copies of business e-mail to my friends without my boss knowing.
b) To keep my e-mail looking clean.
c) To respect my contact's privacy.
d) So I can send copies to anyone I want.

3. When should I update my virus software?

a) Once each day.
b) Once a week.
c) Every time I log on.
d) Only when my ISP tells me to.

4. Before sending a very large attachment, I should:

a) Compress the file (zip it up).
b) Send it first thing in the morning and call to make sure it was received.
c) Send it only during weekdays.
d) Compress the file, then ask first when would be the best time to e-mail it.

5. I should only forward e-mail when:

a) I feel it's important.
b) I know the other person should have the information.
c) The topic is commendable and important to all onliners.
d) I type a personal comment about why I am forwarding that specific e-mail to that specific person.

6. When is it O.K. to contact folks about my business?

a) Only when they e-mail me and ask me for information.
b) When I know they can use my service.
c) When I know I can save them big bucks!

d) Anytime - that's called cold calling.

7. I should down edit my e-mail replies by:

a) Removing previous signature files.

b) Removing the previous 2 e-mail noted in my reply.

c) Removing everything not necessary to the ongoing conversation.

d) Spell checking the sender's previous e-mail.

8. What is the most important thing I should do with every e-mail?

a) Spell check, use full sentence structure and use proper grammar.

b) Have a nice greeting: Hi, Hello, etc.

c) Have a proper sign off: TIA, Sincerely, etc.

d) All of the above.

9. How quickly should I reply to e-mail?

a) A soon as I can; no longer than 3 days.

b) When I get around to it.

c) I don't have to reply.

d) Doesn't matter.

10. Before e-mailing a Web site for assistance, I should:

a) Double check my e-mail address is correct.

b) Make sure my browser can handle Web site forms.

c) Make a reasonable effort to ensure the info I seek is not already covered on the site.

d) Get all my questions together and only send one e-mail.

Correct answers:

1	2	3	4	5	6	7	8	9	10
d)	c)	c)	d)	d)	a)	c)	d)	a)	c)

If you have more than 5 correct answers you are a netizen; 5 and less correct answers - newbie

XI. A computer game

A computer game is a computer-controlled game where players interact with objects displayed on a screen for the sake of entertainment. A video game is essentially the same form of entertainment, but refers not only to games played on a personal computer, but also to games run by a console or arcade machine. The term

«computer game» also includes games which display only text (and which can therefore theoretically be played on a teletypewriter) or which use other methods, such as sound or vibration, as their primary feedback device, or a controller (console games), and a combination of any of the above. Also, more esoteric devices have been used for input. Usually there are rules and goals, but in more open-ended games the player may be free to do whatever they like within the confines of the virtual universe.

The phrase interactive entertainment is the formal reference to computer and video games. To avoid ambiguity, game software is referred to as «*computer and video games*» throughout this article, which explores properties common to both types of game.

In common usage, a «computer game» or a «PC game» refers to a game that is played on a personal computer. «Console game» refers to one that is played on a device specifically designed for the use of such, while interfacing with a standard television set. A «hand-held» game is an all-in-one screen and game system. «Video game» (or «videogame»), in places where the term is used, has evolved into a catchall phrase that encompasses the aforementioned along with any game made for any other device, including, but not limited to, mobile phones, PDAs (personal digital assistant), advanced calculators, etc.

Benefits of video gaming

Perhaps the most visible values of computer and video gaming are simply its artistic and entertainment values. As a form of multimedia entertainment, modern video games contain a highly unique fusion of 3D art, CG effects, architecture, artificial intelligence, sound effects, dramatic performances, music, storytelling, and, most importantly, interactivity. This interactivity enables the player to explore what amounts to a stylized, artistic depiction and simulation of some three-dimensional environment (something no other form of entertainment can allow) with the actions of the player operating as a single, irreducible variable. In this respect, every game scenario will play out a slightly different way every time. Even if the game is highly scripted, this can still feel like a large amount of freedom to the person who is playing the game.

A related property is that of emergent behavior. While many games including card games and sports rely on emergent principles, games are able to create simulated story worlds where emergent behavior occurs within the context of this world. This

also is very appealing to players. In discussing the issue, game designer Warren Spector has used the term «emergent narrative» to describe how, in a simulated environment, storyline can be created simply by «what happens to the player.»

In Steven Johnson's book, «Everything Bad Is Good For You,» he argues that video games in fact demand far more from a player than traditional games like Monopoly. In order to experience the game, the player must first determine the objectives, as well as how to complete them. They must then learn the game controls and how the human-machine interface works, including menus and HUDs. Beyond such skills, which after some time become quite fundamental and are taken for granted by many gamers, video games are based upon the player navigating (and eventually mastering) a highly complex system with many variables. This requires a strong analytical ability, as well as flexibility and adaptability. To emphasize the point, one expert notes that the strategy guide for Grand Theft Auto III is 53,000 words long. He argues that the process of learning the boundaries, goals, and controls of a given game is often a highly demanding one that calls on many different areas of cognitive function. Indeed, most games require a great deal of patience and focus from the player, and, contrary to the popular perception that games provide instant gratification, games actually delay gratification far longer than other forms of entertainment such as film or even many books. Some research suggests video games may even increase player's attention capacities.

Multiplayer games, which take advantage of the fact that computer games can use the Internet, provide players with the opportunity to compete with other players from across the globe, something that is also unique to electronic gaming. MMORPG's take the concept much further with the establishment of vast, online communities existing in persistent, virtual worlds. Millions of players around the globe are attracted to video gaming simply because it offers such unprecedented ability to interact with large numbers of people engaged simultaneously in a structured environment where they are all involved in the same activity (playing the game).

Even simple games offer potential benefits to the player. Games like Tetris and Pac-man are well-designed games that are easy to pick up but difficult to master, much like chess or even poker. Despite their simplicity, simple games may also feature online capabilities or powerful AI. Depending on the game, players can develop and test their techniques against an advanced computer player or online against other human players.

More obvious benefits to the player can come in the form of education on the game's subject matter. For example, a RTS set during the American Civil War may feature the use of period armies engaging in historical battles, and outwitting an opponent such as Robert E. Lee.

Tasks:

1. Answer the questions.

1. What is a computer game?
2. What do people usually mean saying "interactive entertainment"?
3. What are the kinds of the games?
4. What are the artistic and entertainment values of computer and video gaming?
5. What skills and abilities do video games demand from a player?
6. What are the advantages of multiplayer games?

2. Miscellaneous video game questions for experts, fans, and those who have just passed by the video games in the department store. There's something for everyone in the mix. Good luck!

1. According to Nintendo, what does the 'SP' stand for in the Game Boy Advance SP?

Speedy
Superpowers
Small Pieces
Special

2. In this «Mario» game, Yoshi is only found on the roof of Princess Peach's Castle. It's also the first game in the «Mario» series to replace the name Princess Toadstool with 'Peach'. What game is it?

Super Mario 64
Super Mario RPG: Legend of the Seven Stars
Mario Kart 64
Mario Tennis

3. Which company created the popular PC game «Diablo II» and its expansion pack «Lord of Destruction»?

Activision
Sony Online Entertainment
Blizzard Entertainment

Bethesda Softworks
4. What is the subtitle for the PS2 sequel/version of «Final Fantasy VII»?
5. Which «Katamari» title was released on the Sony PSP?
We Love Katamari
Me & My Katamari
Katamari Damacy
Katamari Portable
6. What was the name of the second «Legend of Zelda» title on the NES?
7. «Banjo-Kazooie» was popular on the Nintendo 64. Banjo first appeared in «Diddy Kong Racing», but did Kazooie the breegull also debut in that game?
yes
no
8. This virtual table tennis game was released on an Atari arcade system in 1972! What is the name of this revolutionary game?
Breakout
Virtual Tennis
Pong
Curveball
9. «Star Wars: Battlefront II» introduced Space Battles to the player. One playable unit during a space battle was the Pilot. What was the other?
Marine
Technician
Rocketeer
Bomber
10. «Goldeneye 007» was one of Nintendo's 'Games of the Year'. Although the game had great missions, a major plus was the multiplayer mode. Which of these is not a stage in the multiplayer part of the game?
Complex
Stacks
Silo
Facility

The correct answers.

1. Special.

The Game Boy Advance SP was the first upgraded version of the popular Nintendo handheld system, the Game Boy Advance (the second being the Game Boy Micro). The system improved on the original handheld system and it included a backlight so that the system could be played in the darkness among other things. The Game Boy systems were surpassed in 2005 by the Nintendo DS handheld system, which outsold Sony's first attempt at the Handheld system, the PSP.

2. Super Mario 64.

«Super Mario 64» was a launch title for the ever-popular fifth generation system, the Nintendo 64. The only other Nintendo 64 launch title (in the US) was «Pilotwings 64».

«Super Mario 64» also introduced the Flight/Winged, Metal, and Vanish Caps. Though it wasn't the first 3-D «Mario» game, it was extremely popular (if not the most popular) on the system. In the game, Mario must travel through the pictures in Peach's castle to collect stars and defeat Bowser.

3. Blizzard Entertainment.

Although Blizzard Entertainment is the only correct answer for the question, the other choices are also responsible for creating hit computer games. Sony Online Entertainment created the world of «Everquest» and the sequels to it, Bethesda Softworks created the «Elder Scrolls» games like «Morrowind» and «Oblivion», and Activision was responsible for the creation of «Doom 3» and its expansion. Blizzard didn't only create «Diablo II», they also created «Starcraft» and «Warcraft» – both popular series.

4. The Dirge of Cerberus & Dirge of Cerberus.

«The Dirge of Cerberus» is quite different from most other «Final Fantasy» titles because it's much more like a third-person shooter than the classic RPG style that has been used in past titles. Because of this, the game was released with mixed reviews. Some felt it strayed too far from the original «Final Fantasy VII» (PSX) and the «Final Fantasy» series in general while others felt it was a good shoot 'em up game. A 'Lost Episode' of the game was released in August 2006.

5. Me & My Katamari.

The «Katamari» series is quite unique. In order to advance through the game, you must roll stars, planets, and satellites using katamaris (Japanese for 'clumps' or 'clods'). As the katamari grows, you'll be able to pick up and observe larger objects

get absorbed into the clod such as people, cows, vehicles, and houses. After this, the King of Cosmos will send the katamari into the heavens. «We Love Katamari» improved upon this by creating co-operative and battle missions for two players, and «Me & My Katamari» brought 'the cousins' to the Playstation Portable in 2006.

6. The Adventure of Link & Adventure of Link & Adventures of Link & The Adventures of Link.

«The Adventure of Link» is possibly one of the lesser known titles in the world-famous «Legend of Zelda» series which has earned millions of dollars for Nintendo. This was one of the two NES «Zelda» titles, and it's one of the only «Zelda» side-scrolling games, and like its predecessor, it was also re-released on the Game Boy Advance system. This game also features towns, which have the same names as many of the more famous characters in the Nintendo 64 title «Ocarina of Time» (such as Darunia, Ruto, Mido, and Nabooru).

7. No.

This game was much awaited by players of both «Diddy Kong Racing» and the Nintendo 64. Created by Rare, «Banjo-Kazooie» was one of the top-selling games for the system and it spawned a sequel and two other titles for handheld systems. In both «Banjo-Kazooie» and «Banjo-Tooie», the duo had to collect jigsaw puzzle pieces called 'Jiggies' in order to advance through their location, whether it be Grunty's Lair or Isle O' Hags, and defeat the evil witch, Gruntilda.

8. Pong.

«Pong» is a simplistic arcade game that is extremely well known, and while it's not the first game ever created (as some may believe), it's one of the older games created. «Pong» has been remade and redone over and over in the years, but the basic theme has stayed the same – hit the ball with the paddle. «3-D Pong» was created for the PC in the 90's and it introduced environments and shaped arenas (such as a large donut-type area).

9. Marine.

Due to the success of Lucasarts' popular «Star Wars Battlefront», a sequel was released. The game featured many favourite stages and the ever-popular multiplayer mode. It also improved many of the past stages and added new ones into the mix. Players could also participate in space battles. During these, one could fly through space to destroy ships and opponents, or they could fly across from ship to ship in order to attack from the inside.

10. Silo

Although ‘Silo’ is a single player stage, it wasn’t one of the five single-player stages to be unlocked as a multiplayer level. Although the most popular multiplayer mode was a normal deathmatch, players could also play Capture the Flag, The Man with the Golden Gun, You Only Live Twice, and License to Kill. Players could also choose their characters, weapons, stages, and mission settings before the game was started.

XII. Online shop

Online shopping is the process consumers go through to purchase products or services over the Internet. An online shop, e-shop, internet shop, webshop or online store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or in a shopping mall. It is an electronic commerce application used for business-to-business electronic commerce (B2B) or business-to-consumer electronic commerce (B2C). Online shopping is popular mainly because of its speed and ease of use. Some issues of concern can include fluctuating exchange rates for foreign currencies, local and international laws and delivery methods.

Product reviews

Online shoppers can easily learn from previous experiences of different products, mostly by reading user or expert reviews. Reading online product reviews is usually the first step in online shopping, which plays an important role in customers’ decisions. Many online stores such as Amazon.com and Newegg today allow customers to comment or rate their items. There are also dedicated review sites (e.g. Epinions, review center, etc.) to host user reviews for different products.

Store reputation

It is important to do business with reputable online stores to avoid possible Internet fraud and to easily exchange or return when things go wrong. Again, shoppers often read store ratings or reviews by other customers if they are not familiar with some online stores. Some famous websites providing store ratings such as reseller ratings. Some general guidelines apply when choosing an online store

- Honesty in providing product information and availability
- Speed of orders processing
- Shipping cost and speed: online package tracking is popular today

- Return/exchange policy: the time frame customers can return/exchange; who should pay the returning shipping; if there is any restocking fee etc.

Some online stores also provide live chat with their representatives in case customer needs to discuss the product.

Price comparison

An advantage of shopping online is being able to use the power of the Internet to seek out the lowest prices or the best deals available for items or services. For example if one is buying a digital camera he/she should enter «digital camera» into a search engine or a price search engine. Most price comparison services have the advantage of store ratings and reviews. Getting the lowest price is important but it is more important to make sure the merchant or store the customer is purchasing from is reputable. There are some online stores that display ridiculously low prices, but when you call them you may find out that the item you're seeking is out of stock. This is called the «bait and switch» technique. The best way to avoid backorder disappointment is to contact the online store by phone and verify that the product you're seeking is in stock. If you're told that there's only one left, then place your order by phone.

The differences between the online prices and local store prices also rely on the shipping cost and taxes. A wise customer would consider the final prices instead of just product prices.

Discounts

There are multiple websites (e.g. FatWallet, dealsea, etc.) that compile coupon or discount information for most online merchants. Before purchasing online, it is usually worth checking for discounts and coupons. Typing the name of the online merchant along with the word «coupon» in a search engine will provide multiple results. Some of the more popular coupon websites have forums where you can ask for help hunting down a deal if you don't have the time.

There are at least three major shopping portals that provide members rebates for shopping via their sites. How does it work? The merchants pay the portals for the business; the portals share the proceeds with the member. Rebates usually range in the 2-5% range. Membership is free, but some portals require a higher rebate balance before payout. Some will send out a payment automatically, others wait

until the member requests one. If you join, be sure to read the fine print so you understand the rebate program.

Tasks:

1. Are these statements true or false?

1. Online shopping is popular because of its big choice and low prices.
2. The first step in online shopping is reading product reviews.
3. The Internet fraud is impossible when you are buying online.
4. It's impossible to return a product when you are doing online shopping.
5. In case customer needs to discuss the product there is a live chat with an online store.
6. It's very important to make sure the merchant or store the customer is purchasing from is reputable.
7. When you are shopping on-line there are no any discounts.

XIII. Internet Café

An Internet café or cybercafé is a place where one can use a computer with Internet access for a fee, usually per hour or minute; sometimes one can have unmetered access with a pass for a day or month, etc. It may or may not serve as a regular café as well, with food and drinks being served.

History.

The concept and name, Cybercafé, was invented at the beginning of 1994 by Ivan Pope. Commissioned to develop an Internet event for an arts weekend at the Institute of Contemporary Arts in London, Pope wrote a proposal outlining the concept of a café with Internet access from the tables. The event was run over the weekend of March 12-13 1994 during the 'Towards the Aesthetics of the Future' event.

In June 1994, The Binary Cafe, Canada's first Internet café, opened in Toronto, Ontario. During the 5th International Symposium on Electronic Art, ISEA, in August 1994, an establishment called CompuCafe was established in Helsinki, Finland, featuring both Internet access and a robotic beer seller.

Inspired partly by the ICA event, a commercial establishment of this type, called Cyberia, opened on September 1, 1994 in London, England. The first American

Internet cafe, the Internet Cafe, opened in early 1995 in the East Village neighborhood of New York City.

Characteristics.

Internet cafés are located world-wide, and many people use them when traveling to access webmail and instant messaging services to keep in touch with family and friends. Apart from travelers, in many developing countries Internet cafés are the primary form of Internet access for citizens as a shared-access model is more affordable than personal ownership of equipment. A variation on the Internet café business model is the LAN gaming center, used for multiplayer gaming. These cafés have several computer stations connected to a LAN (local area network). The connected computers are custom-assembled for gameplay, supporting popular multiplayer games. This is reducing the need for video arcades and arcade games, many of which are being closed down or merged into Internet cafés. The use of Internet cafés for multiplayer gaming is particularly popular in certain areas of Asia like China, Taiwan and Japan.

There are also Internet kiosks – Internet access points in public places like public libraries, airport halls, sometimes just for brief use while standing. Many hotels, resorts, and cruise ships offer Internet access for the convenience of their guests; this can take various forms, such as in-room wireless access, or a web browser that uses the in-room television set for its display (usually in this case the hotel provides a wireless keyboard on the assumption that the guest will use it from the bed), or computer(s) that guests can use, either in the lobby or in a business center. As with telephone service, in the US most mid-price hotels offer Internet access from a computer in the lobby to registered guests without charging an additional fee, while fancier hotels are more likely to charge for the use of a computer in their «business center».

For those traveling by road in North America, many truck stops have Internet kiosks, for which a typical charge is around 25 cents per minute.

Internet cafés are a natural evolution of the traditional cafe. Cafés started as places for information exchange, and have always been used as places to read the paper, send postcards home, play traditional or electronic games, chat to friends, find out local information. Cafés have also been in the forefront of promoting new technologies, for example, the car in 1950s California.

Internet cafés come in a wide range of styles, reflecting their location, main clientele, and sometimes, the social agenda of the proprietors. In the early days they were important in projecting the image of the Internet as a 'cool' phenomena.
To combat terrorism, Italian government requires positive identification from all users of Internet cafes.
As Internet access is in increasing demand, many pubs, bars and cafes have terminals, so the distinction between the Internet cafe and normal café is eroded. In some, particularly European countries, the number of pure Internet cafés is decreasing since more and more normal cafés offer the same services. However, there are European countries where the total number of publicly accessible terminals is also decreasing. An example of such a country is Germany. The cause of this development is a combination of complicated regulation, relatively high internet penetration rates, the widespread use of notebooks and PDAs and the relatively high number of WLAN hotspots. Many pubs, bars and cafés in Germany offer WLAN, but no terminals since the Internet café regulations do not apply if no terminal is offered. Additionally, the use of Internet cafés for multiplayer gaming is very difficult in Germany since the Internet cafe regulations and a second type of regulations which was originally established for video arcade centers applies to this kind of Internet cafes. It is, for example, forbidden for people under the age of 18 to enter such an Internet café, although particularly people under 18 are an important group of customers for this type of Internet café.
In places with censoring regimes such as Singapore, Internet cafés are closely controlled. In some places computers are in booths to allow private access to pornography. In some areas of Los Angeles they are controlled because they attract street gangs. While most Internet cafés are private businesses many have been set up to help bridge the "digital divide", providing computer access and training to those without home access. For example, the UK government has supported the setting up of 6000 telecentres.

Tasks:

1. Here are some answers. What are the questions?

- In 1994 by Ivan Pope.
- To access webmail and to keep in touch with family or friends.
- This is reducing the need for video arcades and arcade games.

- For the convenience of their guests.
- To combat terrorism.
- Since the Internet café regulations.
- Because they attract street gangs.

2. Here are the four headings from the text.

History of an internet café.

Its main characteristics.

Different kinds of an internet café.

Internet café regulations.

- Use them to retell the main points of the text.
- Use headings to help you to talk about one of the favourite internet café in your city.

XIV. Information Technology

Information Technology (IT) also known as Information and Communication(s) Technology (ICT) and Infocomm in Asia is concerned with the use of technology in managing and processing information, especially in large organizations.

In particular, IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information. For that reason, computer professionals are often called IT specialists/consultants or Business Process Consultants, and the division of a company or university that deals with software technology is often called the IT department. Other names for the latter are information services (IS) or management information services (MIS), managed service providers (MSP).

History.

The first commercial business computer was developed in the United Kingdom in 1951, by the Joe Lyons catering organization. This was known as the "Lyons Electronic Office" – or LEO for short. It was developed further and used widely during the 1960s and early 1970s. (Joe Lyons formed a separate company to develop the LEO computers and this subsequently merged to form English Electric Leo Marconi and then International Computers Ltd.)

Early commercial systems were installed exclusively by large organizations. These could afford to invest the time and capital necessary to purchase hardware, hire

specialist staff to develop custom software and work through the consequent (and often unexpected) organizational and cultural changes.

At first, individual organizations developed their own software, including data management utilities, themselves. Different products might also have ‘one-off’ custom software. This fragmented approach led to duplicated effort and the production of management information needed manual effort.

High hardware costs and relatively slow processing speeds forced developers to use resources ‘efficiently’. Data storage formats were heavily compacted, for example. A common example is the removal of the century from dates, which eventually lead to the ‘millennium bug’.

Data input required intermediate processing via punched paper tape or card and separate input to computers, usually for overnight processing. Data required validation in batches. All of this was a repetitive, labor-intensive task, removed from user control and error-prone. Invalid or incorrect data needed correction and resubmission with consequences for data and account reconciliation.

Data storage was strictly serial on paper tape, and then later to magnetic tape: the use of data storage within readily accessible memory was not cost-effective.

Results would be presented to users on paper. Enquiries were delayed by whatever turn round was available.

Today.

As with other industrial processes, commercial IT has moved in all respects from a custom, craft-based industry, where the product was tailored to fit the customer, to multi-use components taken off the shelf to find the best fit in any situation. Mass-production has greatly reduced costs and IT is available to the smallest company or a one-man band – or a school-kid.

LEO was hardware tailored for a single client. Today, Intel Pentium and compatible chips are standard and become parts of other components, which are combined as needed. One individual change of note was the freeing of computers and removable storage from protected, air-filtered environments. Microsoft and IBM at various times have been influential enough to impose order on IT and the resultant standardizations allowed specialist software to flourish.

Software is available off the shelf: apart from Microsoft Office or IBM Lotus Notes, there are also specialist packages for payroll and personnel management, account maintenance and customer management, to name a few. These are highly

specialized and intricate components of larger environments, but they rely upon common conventions and interfaces.

Data storage has also standardized. Relational databases are developed by different suppliers to common formats and conventions. Common file formats can be shared by large mainframes and desktop personal computers, allowing online, real-time input and validation.

In parallel, software development has fragmented. There are still specialist technicians, but these increasingly use standardized methodologies where outcomes are predictable and accessible. At the other end of the scale, any office manager can dabble in spreadsheets or databases and obtain acceptable results (but there are risks).

Tasks:

1. Go through the quiz.

1. Attachment

A Is a piece of specialized hardware, like a modem
B Is a case for carrying your laptop in
C Is a file or text document sent along with an e-mail message

2. Autocorrect

A Is a function key in Word that corrects all your mistakes with grammar spelling and punctuation
B Is a function of Word that corrects commonly mistyped words
C Is a function of Word where you can get the correct answer to any question you type in

3. Block

A To mark or select a section of text for later action
B To permanently delete a section of text
C To cover the keyboard so you can’t type

4. Cursor

A Is someone who swears loudly at a badly performing PC or program
B Is the little flashing thing on the screen, which shows your position
C Is an annoying piece of fluff on a monitor

5. Cut and Paste

A Is to move text or images from one location to another
B Is to remove gaps from a text
C Is to cover your monitor in little pink sticky notes

6. Double-click

A To press the mouse button twice in quick succession
B To switch a PC on and off rapidly
C To hurt one's back while connecting a computer cable

7. Font

A Is a water container in a church used when baptizing babies
B Is the style of text characters shown on your screen and printouts
C Is a special button on a PC to put it to sleep

8. Hard-Copy

A Is a type of text written in a special program that is difficult to cut and paste
B Is a gap in text that is created by pressing the return key
C Is a printed copy of a program file, such as an essay

9. Italics

A *This sentence is written in italics*
B **This sentence is written in italics**
C This sentence is written in italics

10. Outline

A Is both a pre-writing method and a function of Word
B Is a connecting socket on the back of a PC for a printer
C Is a line painted along the sides of a football pitch

11. Spike

A Is a kind of super clip-board in Word
B Is a type of move in volleyball
C Is a sharp corner on your PC, which you constantly catch your sleeve on

The correct answers are:

1	2	3	4	5	6	7	8	9	10	11
C	B	A	B	A	A	B	C	A	A	A

XV. Bill Gates

William Henry Gates III (born October 28, 1955 in Seattle, Washington) is an American entrepreneur and the co-founder, chairman, former chief software architect, and former CEO of Microsoft, the world's largest software company. *Forbes* magazine's list of The World's Billionaires has ranked him as the richest person on earth for the last thirteen consecutive years, with a current net worth of approximately $53 billion. When family wealth is considered, his family ranks second behind the Walton family.

Gates is one of the best-known entrepreneurs of the personal computer revolution. Although he is widely respected by people who see his wealth as a product of intelligence and foresight, his business tactics have often been criticized as unethical or anti-competitive, and have, in some instances, been ruled as such in court. Since amassing his fortune, Gates has pursued a number of philanthropic endeavors, donating large amounts of money to various charitable organizations and scientific research programs through the Bill & Melinda Gates Foundation, established in 2000.

Early Life.

William Henry Gates III was born in Seattle, Washington to William H. Gates, Jr. (now *Sr.*) and Mary Maxwell Gates. His family was wealthy; his father was a prominent lawyer, his mother served on the board of directors for First Interstate Bank and the United Way, and her father, J. W. Maxwell, was a national bank president. Gates has one older sister, Kristi (Kristianne), and one younger sister, Libby. He was the fourth of his name in his family, but was known as William Gates III or «Trey» because his father had dropped his own «III» suffix. Several writers claim that Maxwell set up a million-dollar trust fund for Gates. A 1993 biographer who interviewed both Gates and his parents (among other sources) found no evidence of this and dismissed it as one of the «fictions» surrounding Gates's fortune. Gates denied the trust fund story in a 1994 interview and indirectly in his 1995 book *The Road Ahead.*

Gates excelled in elementary school, particularly in mathematics and the sciences. At thirteen he enrolled in the Lakeside School, Seattle's most exclusive preparatory school where tuition in 1967 was $5,000 (Harvard tuition that year was $1,760). When he was in the eighth grade, the school mothers used proceeds from a

rummage sale to buy Lakeside an ASR-33 teletype terminal and a block of computer time on a General Electric computer. Gates took an interest in programming the GE system in BASIC and was excused from math classes to pursue his interest. After the Mothers Club donation was exhausted he and other students sought time on other systems, including DEC PDP minicomputers. One of these systems was a PDP-10 belonging to Computer Center Corporation, which banned the Lakeside students for the summer after it caught them exploiting bugs in the operating system to obtain free computer time.

At the end of the ban, the Lakeside students (Gates, Paul Allen, Ric Weiland, and Kent Evans) offered to find bugs in CCC's software in exchange for free computer time. Rather than use the system via teletype, Gates went to CCC's offices and studied source code for various programs that ran on the system, not only in BASIC but FORTRAN, LISP, and machine language as well. The arrangement with CCC continued until 1970, when it went out of business. The following year Information Sciences Inc. hired the Lakeside students to write a payroll program in COBOL, providing them not only computer time but royalties as well. At age 14, Gates also formed a venture with Allen, called Traf-O-Data, to make traffic counters based on the Intel 8008 processor. That first year he made $20,000, however when his age was found out they lost a lot of business.

As a youth, Bill Gates was active in the Boy Scouts and achieved its second highest rank, Life Scout.

According to a press inquiry, Bill Gates stated that he scored 1590 on his SATs. He enrolled at Harvard University in the fall of 1973 intending to get a pre-law degree, but did not have a definite study plan. While at Harvard he met his future business partner, Steve Ballmer.

Microsoft

After reading the January 1975 issue of *Popular Electronics* that demonstrated the Altair 8800, Gates contacted MITS (Micro Instrumentation and Telemetry Systems), the creators of the new microcomputer, to inform them that he and others were working on a BASIC interpreter for the platform. In reality, Gates and Allen did not have an Altair and had not written code for it; they merely wanted to gauge MITS's interest. MITS president Ed Roberts agreed to meet them for a demo, and over the course of a few weeks they developed an Altair emulator that ran on a minicomputer, and then the BASIC interpreter. The demonstration, held at MITS's

offices in Albuquerque, was a success and resulted in a deal with MITS to distribute the interpreter as Altair BASIC. Gates took a leave of absence from Harvard to work with Allen at MITS, and they dubbed their partnership Micro-Soft.

Microsoft's BASIC was popular with computer hobbyists, but Gates discovered that a pre-market copy had leaked into the community and was being widely copied and distributed. In February 1976, Gates wrote an Open Letter to Hobbyists in the MITS newsletter saying that MITS could not continue to produce, distribute, and maintain high-quality software without payment. This letter was unpopular with many computer hobbyists, but Gates persisted in his belief that software developers should be able to demand payment. Microsoft became independent of MITS in late 1976, and it continued to develop programming language software for various systems.

According to Gates, people at Microsoft often did more than one job during the early years; whoever answered the phone when an order came in was responsible for packing and mailing it. Gates oversaw the business details, but continued to write code as well. In the first five years, he personally reviewed every line of code the company shipped, and often rewrote parts of it as he saw fit.

Tasks:

What do you know about Bill Gates? Answer the questions of the quiz.

1. Which of the following choices is Bill's birth name?
- William Henry Gates III
- William Andrew Gates IV
- Adam Henry Gates V
- Gerald John I

2. What are the names of Bill's parents?
- John and Rosa
- Henry and Jill
- William and Mary
- Gerald and Melinda

3. In what year did Bill begin his freshman year at Harvard?
- 1968
- 1973
- 1980

- 1985

4. On what holiday was Bill married to his first wife, Melinda?
- New Year's Day
- Easter Day
- the 4th of July
- Halloween

5. The title of one of his books was «Business @ the …»?
- the Speed of Thought
- Time to Relax
- the Empty Wallet
- the Games of Thought

6. In what year did Bill have his mugshot taken in New Mexico?
- 1977
- 1955
- 1960
- 1953

7. In what year was the Bill and Melinda Gates Foundation established?
- 1993
- 2000
- 2007
- 1970

8. Bill's son Rory, was born in 1998.
- True
- False

9. In what season of «Frasier» did Bill appear as himself in 2001?
- 1st
- 5th
- 9th
- 10th

10. There was once an e-mail hoax with Walt Disney Jr. and Bill Gates' name on it?
- True
- False

The correct answers

1. William Henry Gates III was born on October 28, 1955 in Seattle, Washington.
2. Bill's father, William H. Gates II, is a Seattle attorney. His mother, Mary, was a schoolteacher and a chairwoman of United Way International and passed away in 1994. He has an older sister, Kristi, and a younger sister, Libby.
3. In 1973, Bill began his freshman year at Harvard University. While a student at Harvard, he developed a version of the programming language, BASIC, for the first microcomputer, (MITS Altair). When Bill was in his junior year, he dropped out to devote his life to his company, Microsoft.
4.The correct answer was New Year's Day.
On January 1, 1994, Bill married Melinda French.
5. «Business @ the Speed of Thought-Using a Digital Nervous System» was released on March 25, 1999 and was published by Warner Books. It explains how computer technology can easily solve business problems in new ways. It has been published in 25 languages and was listed on the best-seller lists of the «New York Times», «USA Today» and the «Wall Street Journal».
6. On December 13, 1977, Bill was taken to jail on a traffic violation in Albuquerque, New Mexico.
7. The Bill and Melinda Gates Foundation was established in January 2000, with the merge of the Gates Learning Foundation and the William H. Gates Foundation. Led by William H. Gates, Sr. and Patty Stonesifer, its goal is to improve equity in global health and learning.
8. Bill and Melinda's oldest child, Jennifer Katharine Gates was born on April 26, 1996. Their son, Rory John Gates, was born on May 23, 1999 and their third child, Phoebe Adele Gates, was born on September 14, 2002.
9. Bill appeared in the 8th episode of the ninth season, «The Two Hundredth» which aired in the U.S. on November 13, 2001. He also promotes his latest development, Microsoft Windows XP in this episode.
10. In 1998, a chain letter was sent from Walt Disney Jr. himself and forwarded all over the world offering readers $5,000 from Disney and Microsoft, or an all-expenses paid trip to anywhere they wanted to go, just for keeping the chain alive and forwarding it to their friends. There isn't a Walt Disney, Jr!

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ЛІТЕРАТУРИ ЗА ФАХОМ

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